

2) subjecting said preform to carbonizing and heat processing conditions, up to 2300°C, sufficient to carbonize said preform;

3) sintering said hardened and carbonized preform by infiltrating it with liquid metal silicon between the temperatures of 1400°C and 1800°C; and

4) optionally forming an anti-oxidation layer on the surface of said hardened and carbonized preform by introducing gaseous SiO₂ to react with any remaining unreacted carbon and silicon, while heat-processing said hardened and carbonized preform within the temperature range of 2000°C – 2700°C.

2. (Amended) The method according to claim 1, wherein the carbon/phenolic preform is prepared by a method selected from the group consisting of:

press molding, tape wrapping with internal and external compression, sewing 2-dimensional fabrics with thermal resistant fiber to make a 3-dimensional preform, and the involve method.

5. (Amended) The method according to either claim 1 or claim 4, wherein a discharge passage of dissolute gas is made by making holes on the hardened preform in step 2).

6. (Amended) The method according to claim 5, wherein the discharge passage is made by making holes of 0.5mm~1.5mm diameter with 5mm~20mm interval if the hardened preform is rectangular box shape.

8. (Amended) The method according to either claim 1 or claim 4, wherein graphite and coke powder are put into a graphite box with a hole and wrap up the entire